Topic:	**Handling, Cleaning and Storing Clay**
Effective:	**June 2014**
Cross-Reference:	**Health and Safety Policy;** **Respiratory Protection Administrative Procedure**
Revision Date:	**December 2020, March 2023**
Review:	**March 2027**
Responsibility:	**Superintendent of Education (K-12 Program),** **Superintendent of Facility Services and Planning,** **Superintendent of Human Resources**

INTENDED PURPOSE:

To define procedures for the handling, cleaning and storing of silica containing clay (PSH 400 and PSH 700). This procedure does not apply to silica-free clay.

PREAMBLE:

Clay is a general term including many combinations of one or more clay minerals with traces of metal oxides and organic matter. Geologic clay deposits are mostly composed of phyllosilicate minerals containing variable amounts of water trapped in the mineral structure. Clay used in sculpting has been manufactured/processed for that purpose. Any process that involves silica containing clay may involve exposure to silica dust and is a potential health concern as silica in various concentrations and repeated exposure may cause silicosis.

Silica is a designated substance in the province of Ontario. Assessment of the clays used at HDSB has revealed no exposure risk to staff when handled properly. Current HDSB procedures are sufficient in handling clay and a control program specific to silica is not required. As with any controlled product, always refer to the Safety Data Sheet (SDS) for the exact composition, precautions and first aid procedures.

Regardless of silica content in the silica containing clay used, these procedures must be adhered to at all times to protect worker and occupant safety.

PROCEDURES:

General:

It is expected educational programs using silica containing clay will be limited to as few

rooms as possible. Staff and students are expected to clean up wet clay as soon as possible and leave the room in a clean and tidy condition at the end of the instructional day. No silica containing clay is to be used in a portable classroom. There is to be no eating or drinking in classrooms using clay.

Staff will ensure students using clay will:

- complete safety training with students to ensure understanding of hazards ensuring SDS are readily available and reviewed prior to use.
- use silica based clay only for work that is to be fired in a kiln; where possible, use silica-free alternatives such as Crayola Model Magic, Amaco Self-Hardening Moist Clay or Mexican Pottery Clay.
- ensure clay is never used in carpeted areas.
- ensure loose hair is tied back, shirt sleeves are rolled up and smocks are worn over clothing where available.
- work from tabletops/desks that have been fully cleared of other instructional materials.

All staff handling clay will adhere to the following measures when handling/manipulating clay:

- Review the SDS prior to handling/manipulating clay.
- Upon receipt of a clay shipment, staff receiving the shipment shall inspect the box for excessive dust accumulation and, if observed, wipe down the boxed clay with a damp cloth prior to it being brought into the building.
- Cover all work surfaces with newspaper or newsprint prior to working with clay.
- Place work boards (e.g., plastic trays, masonite board) on top of the paper.
- Use a spray bottle containing water to dampen clay.
- Wet down tables/desks prior to any movement in the classroom to minimize dust.
- Ensure clay waste receptacles are sealed/covered at all times.
- Moisten sculptures before transport.
- Tables and shelves are to be moistened with a spray bottle prior to storing sculptures.
- In order to keep clay moist between classes and before completion, wrap the entire sculpture in plastic and store.
- Wet wipe drying shelves/racks after sculptures are removed for firing.
- Wipe down slip container lids and edges used during the class with a wet cloth.
- Never allow dry sanding of clay. If edges or surfaces need to be smoothed, use a damp disposable cloth or paper towel.
- Thoroughly wash hands, including under the nails, after handling clay; ensure students clean their hands and under their nails thoroughly with soap and water before they leave the classroom.
- Ensure overall proper housekeeping within the classroom.

Any questions specific to the processes for handling clay should be directed to the

School Programs Department or the Health and Safety Department.

Room Clean Up

During the clay unit, in the specified rooms, the teacher and students will clean up wet clay spills and caretaking staff will provide daily cleaning after hours. After hours cleaning will include wet wiping desks and wet mopping floors. Dry cleaning methods (i.e., dry cloth wiping or sweeping) will not take place at this time.

Other cleaning considerations include the following:

- Teaching staff should communicate with the caretaking staff in advance that clay will be used in the designated rooms so that the caretaking department can make arrangements for prioritized cleaning of the room.
- Only wet mop to clean up clay dust and debris. Sweeping generates airborne dust. Standard vacuum bags are not fine enough to trap the silica dust. The use of a standard vacuum will cause the fine particles to become airborne when they pass through the vacuum bag and filter.
- Always use wet disposable towels or cloths to damp clean all tools and classroom surfaces. Ensure tools and surfaces have no remaining residue.
- Dusts are most likely to be generated during the cleaning up of dried clay as part of afternoon caretaking cleaning routines. To minimize airborne dust exposure, never dry sweep floors in art rooms at any time. Use only wet mopping and hosing methods.

Storage and Disposal of Clay

- Always store leftover clay in a labeled wet pail or plastic bag to prevent drying and accidental release of particles. Add water to keep the clay moist at all times.
- Dispose of all cleaning cloths, paper towels and wet newspaper or newsprint in sealed plastic garbage bags.
- All broken or discarded pieces of fired material must be discarded in a sealed plastic bag.

Accidental Spillage/Release

Where dried clay has fallen and broken apart, the potential for silica dust to become airborne exists. Should this occur, follow these steps in order:

Small Spill (a small sculpture):

- Move students away from the spill and restrict access to the area.
- Teacher must don the provided N95 respirator. N95 respirators must be ordered through the School Programs Department and the Instructional Program Leader with responsibilities for The Arts.

  Note: Teachers must have been fit tested before using a N95 respirator. If a teacher in the room was unsuccessfully fit tested, another teacher who was successfully fit tested should be assigned to clean up the spill.
- Teacher wets down the spill with a spray bottle.
- Collect spilled material and dispose of in a plastic garbage bag. Seal and place in waste receptacle.

Large Spill (large sculpture, multiple small sculptures or dropped box of open clay):

- Clear the room immediately.
- Shut down mechanical ventilation.
- Call the Health and Safety Department.
- Clean up to be performed by Facilities Services staff.

DO NOT re-enter the room until the all clear has been given by the Health & Safety Department.